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Varietal Description of Andro Oilseed Flax

Origin and breeding

Andro, tested as FP 846, was developed by the Crop Development Centre, University of Saskatchewan. Andro is a tissue culture derived variety which arose from a population of cells from a single seed of the cultivar McGregor in 1982. This population of cells was plated into a highly saline culture medium. One cell colony survived the treatment, was rescued, regenerated and gave rise to the line designated STS-II (Salt Tolerant Selection II). Breeder seed originated from a bulk of progeny derived from 84 plant selections made from STS-II.

Varietal characteristics

Plant characteristics

Flowers: medium sized; medium blue petals; blue anthers; colorless filaments; colorless style with a blue base
Seed pod: medium sized; semi-dehiscent at maturity; ciliated false septa
Plant height: medium-tall; similar to NorLin
Maturity: early; similar to Noralta
Straw: medium-tall, similar to NorLin; good straw strength
Salt tolerance: no better than that of McGregor
Disease reaction: Andro is immune to North American races of rust *Melampsora lini*, and moderately susceptible to Fusarium wilt *F. oxysporum*.

Seed characteristics

Color: brown
Size: medium, similar to NorLin and NorMan, 6.0 g/1000
Quality: fair oil content, similar to Linott and NorLin; good oil quality, similar to Linott; good protein content, similar to NorMan.

Performance

Andro had a slightly lower yield than the mean of the check varieties in the co-operative flax tests. It yields best in the black and grey zones of Western Canada and has a superior protein content over the check varieties in all zones tested.

Adaptation

Andro is intended as a replacement for the early maturing cultivar Noralta. Andro is best adapted to more northern growing areas of the prairies of Saskatchewan and Alberta.

Maintenance of breeder seed

University of Saskatchewan, Saskatoon, Saskatchewan

Canadian distributor

SeCan Association

Supported by

Western Canada Registration Recommending Committee on Oilseeds and Specialty Crops

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Table 1. Performance of Andro and check varieties, co-operative flax tests, 1985-1987*

Variety	Yield (kg/ha)	Days to Maturity	Height (cm)	1000 Seed Wt.(g)	Oil Content (%)	Iodine Number	Protein Content (%)
			Black Soil Zone				
	(17)**	(9)	(16)	(17)	(17)	(17)	(13)
Linott	1530	103.2	68.2	5.6	43.3	185	31.2
Noralta	1600	104.0	61.1	5.3	42.4	185	31.0
Dufferin	1690	112.2	61.7	5.7	45.1	185	30.8
McGregor	1780	113.5	62.4	5.4	44.2	185	30.5
NorLin	1700	105.7	55.9	5.8	43.5	184	31.4
NorMan	1740	109.2	57.8	5.8	44.9	181	31.6
Vimy	1600	106.4	58.8	6.3	44.9	187	30.9
Andro	1600	105.8	55.7	5.9	43.4	188	31.9
			Brown Soil Zone				
	(18)	(6)	(13)	(18)	(18)	(18)	(8)
Linott	1350	110.6	47.3	6.0	43.9	187	31.9
Noralta	1460	108.6	51.2	5.5	42.6	186	31.2
Dufferin	1510	111.7	51.4	5.8	46.0	186	30.7
McGregor	1600	112.6	50.7	5.5	44.9	187	31.0
NorLin	1590	110.8	48.4	6.2	44.1	186	31.6
NorMan	1580	110.5	47.4	5.9	45.5	182	31.4
Vimy	1580	111.5	49.4	6.8	45.7	188	31.4
Andro	1390	110.8	47.6	6.0	43.7	189	32.1
			Black & Grey Soil Zone				
	(8)	(6)	(8)	(9)	(9)	(9)	(2)
Linott	1770	122.9	51.8	6.1	43.7	191	31.7
Noralta	1890	121.3	55.7	5.8	43.1	192	31.8
Dufferin	1930	128.0	54.8	6.4	46.2	193	31.6
McGregor	2000	129.6	55.3	5.9	45.4	192	32.2
NorLin	1960	124.8	54.4	6.5	44.6	193	32.1
NorMan	1950	125.5	51.4	6.5	45.7	189	33.4
Vimy	1770	126.4	54.9	6.8	45.7	193	32.4
Andro	1930	123.0	54.0	6.2	43.9	195	33.1
			Eastern Canada				
	(8)	(8)	(8)	(8)	(8)	(8)	(5)
Linott	2000	102.2	57.8	5.5	42.7	180	32.0
Noralta	1810	101.3	60.1	5.1	41.3	180	32.3
Dufferin	1970	105.8	62.2	5.7	44.0	178	32.0
McGregor	1930	105.4	60.3	5.3	42.7	181	31.2
NorLin	2040	103.7	60.0	5.8	42.6	179	31.4
NorMan	1980	105.6	57.2	5.8	43.6	175	32.7
Vimy	1650	104.4	60.8	6.2	43.6	182	30.8
Andro	1880	105.2	59.1	5.7	42.6	183	32.8

* Locations: Morden, Portage la Prairie, Brandon, Winnipeg, Indian Head, Arcola, Melfort, Regina, Saskatoon, Elrose, Scott, Swift Current, Lethbridge, Brooks, Edmonton, Lacombe, Ft. Vermilion, Guelph, New Liskeard, and Laval University.

** Numbers in parentheses indicate station years.

Table 2. Agronomic performance of Andro and check varieties, late seeded co-operative tests, 1985-1987*

Variety	Yield (kg/ha)	Days to Maturity	Height (cm)	1000 Seed Wt.(g)	Oil Content (%)	Iodine Number	Protein Content (%)
	(8)**	(4)	(7)	(8)	(8)	(8)	(8)
Linott	1220	98	58.8	5.8	43.5	185	32.2
Noralta	1010	100	66.4	5.5	42.1	187	31.2
Dufferin	1100	105	68.6	5.9	44.9	189	31.1
McGregor	1130	104	65.9	5.8	44.0	188	31.1
NorLin	1170	99	60.6	6.1	43.8	187	31.3
NorMan	1090	103	63.4	6.1	44.7	182	32.2
Vimy	1140	101	63.3	6.4	44.8	189	31.0
Andro	1120	100	61.0	6.0	43.3	191	32.8

* 1986 locations: Portage la Prairie, Indian Head; 1985 and 1987 locations: Morden, Portage la Prairie and Indian Head.

** Numbers in parentheses indicate station years.

Table 3. Yield performance (kg/ha) of Andro and check varieties, flax co-operative test by province, 1985-1987.

Variety	Western Canada	Manitoba	Saskatchewan	Alberta
	(43)*	(10)	(22)	(11)
Dufferin	1658	1697	1418	2105
Linott	1498	1623	1226	1930
McGregor	1744	1769	1493	2223
Noralta	1597	1591	1361	2074
NorLin	1706	1760	1426	2216
NorMan	1713	1766	1461	2172
Vimy	1622	1547	1468	1998
Andro	1581	1713	1263	2098

* No. of station years.

Table 4. Yield performance (kg/ha) of Andro and check varieties, flax co-operative tests, northern trials, 1985-1987.

Variety	Melfort	Lacombe	Edmonton	Beaver-lodge	Fort Vermilion	Average
	(2)*	(2)	(3)	(1)	(2)	
Dufferin	1859	1913	2239	963	1964	1788
Linott	1440	1763	2212	1016	1477	1581
McGregor	2157	1922	2275	1202	2054	1922
Noralta	1945	1970	2174	1259	1791	1828
NorLin	1765	1874	2343	1022	1968	1794
NorMan	2025	1909	2334	988	1881	1827
Vimy	1659	1384	2364	1122	1607	1627
Andro	1674	1965	2284	1035	1841	1760

* No. of tests

Table 5. Yield performance (kg/ha) of Andro and check varieties, Saskatchewan Advisory Council, 1985-1987.

Variety	Somme	Nipawin	Meath Park	Shellbrook	Kelvington	Average
	(2)*	(3)	(2)	(3)	(1)	
Dufferin	1544	1344	1846	2051	1766	1703
McGregor	1288	1246	1467	2080	1538	1548
Noralta	1332	1454	1638	2183	1931	1707
NorLin	1419	1619	2075	2167	1980	1848
NorMan	1399	1477	1796	2213	1978	1767
Andro	1329	1345	1807	2212	1979	1720

* No. of tests

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